

United States Department of Agriculture  
Animal and Plant Health Inspection Service  
4700 River Road  
Riverdale, MD 20737

**Permit to Move Live Plant Pests, Noxious Weeds, and Soil**  
Interstate Movement  
**Regulated by 7 CFR 330**

This permit was generated electronically via the ePermits system

<b>PERMITTEE NAME:</b>	Dr. Poornima Parameswaran	<b>PERMIT NUMBER:</b>	P526P-18-00353
<b>ORGANIZATION:</b>	Trace Genomics, Inc.	<b>APPLICATION NUMBER:</b>	P526-170907-012
<b>ADDRESS:</b>	849 Mitten Road Suite 104 Burlingame, CA 94010	<b>FACILITY NUMBER:</b>	4512
<b>MAILING ADDRESS:</b>	849 Mitten Road Suite 104 Burlingame, CA 94010	<b>HAND CARRY:</b>	No
<b>PHONE:</b>	650-796-7634	<b>DATE ISSUED:</b>	01/30/2018
<b>FAX:</b>		<b>EXPIRES:</b>	<b>01/30/2021</b>
<b>DESTINATION:</b>	849 Mitten Road, Suite 104, Burlingame, CA 94010		
<b>RELEASE:</b>	No		

Under the conditions specified, this permit authorizes the following:

<u>Regulated Article</u>	<u>Life Stage(s)</u>	<u>Intended Use</u>	<u>Shipment Origins</u>	<u>Originally Collected</u>	<u>Culture Designation</u>
Bacteria	Any	Diagnostic Labs	AS, GU, HI, MP, PR, VI, Continental U.S.	Originally Collected from USA including territories	
Fungi	Any	Diagnostic Labs	AS, GU, HI, MP, PR, VI, Continental U.S.	Originally Collected from USA including territories	
Nematodes	Any	Diagnostic Labs	AS, GU, HI, MP, PR, VI, Continental U.S.	Originally Collected from USA including territories	
Viruses/Viroids	Any	Diagnostic Labs	AS, GU, HI, MP, PR, VI, Continental U.S.	Originally Collected from USA including territories	

**PERMIT GUIDANCE**

Receipt or use of foreign isolates or samples from countries under sanctions requires specific permission from the U.S. Department of Treasury (see <http://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx> for current country/regional listings) for current country listings.

This permit does not authorize importation, interstate movement, and/or environmental release of strains of genetically engineered regulated organisms (created by the use of recombinant DNA technology).

If an animal pathogen is identified in your shipment, to ensure appropriate safeguarding, please refer to

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PPQ HEADQUARTER OFFICIAL VIA EPERMITS.



**Zhaowei Liu**

DATE

**01/30/2018**

WARNING: Any alteration, forgery or unauthorized use of this Federal Form is subject to civil penalties of up to \$250,000 (7 U.S.C.s 7734(b)) or punishable by a fine of not more than \$10,000, or imprisonment of not more than 5 years, or both (18 U.S.C.s 1001)

[http://www.aphis.usda.gov/import\\_export/animals/animal\\_import/animal\\_imports\\_anproducts.shtml](http://www.aphis.usda.gov/import_export/animals/animal_import/animal_imports_anproducts.shtml).

This permit does not fulfill the requirements of other federal or state regulatory authorities. As appropriate, please contact the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Food and Drug Administration, the Centers for Disease Control and Prevention, the APHIS Veterinary Services unit, or your States Department of Agriculture to ensure proper permitting.

If you are considering renewal of this permit, an application should be submitted at least 90 days prior to the expiration date of this permit to ensure continued coverage. Permits requiring containment facilities may take a longer period of time to process.

You must abide by all local quarantines see: [http://www.aphis.usda.gov/planthealth/pests\\_and\\_diseases](http://www.aphis.usda.gov/planthealth/pests_and_diseases)  
Of special concern for movement of soil from certain continental areas are:

FRUIT FLIES: 7 CFR 301.32

WITCHWEED: 7 CFR 301.80

IMPORTED FIRE ANTS: 7 CFR 301.81

GOLDEN NEMATODES: 7 CFR 301.85

POTATO/PALE CYST NEMATODE: 7 CFR 301.86

PHYTOPHTHORA RAMORUM (Sudden Oak Death): 7 CFR 301.92


CFR (Code of Federal Regulations): <http://www.ecfr.gov/cgi-bin/ECFR?page=browse>

### PERMIT CONDITIONS

This permit authorizes the interstate movement of host material infected with the listed organisms from various researchers within the United States and its territories to Poornima Parameswaran with Trace Genomics, Inc. in Burlingame, California for diagnostic research in the containment facility #4512 (CF#4512).

1. The permit holder must:
  - (a) comply with all requirements and permit conditions,
  - (b) maintain a valid permit so long as the regulated organisms are alive,
  - (c) this permit cannot be assigned or transferred to other persons.
  - (d) permittee must maintain a residence in the United States
  - (e) safeguard and dispose of the regulated organisms during the term of this permit,
  - (f) take all necessary precautions to prevent the unauthorized release of regulated organisms. In the event of an unauthorized release, the permit holder must notify the permit unit,
  - (g) adequately mitigate environmental impacts resulting from unauthorized release of regulated organisms,
  - (h) contain any/all organisms not authorized under this permit,
  - (i) notify the permit unit of the receipt of unauthorized organisms,

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- (j) notify the permit unit if facilities are destroyed or decommissioned for any reason,
- (k) maintain an official permanent work assignment at the address on this permit,
- (l) notify the permit unit in advance of any change in the permit holder's work assignment,
- (m) destroy all regulated organisms prior to departure unless other arrangements are confirmed by the permit unit prior to the permit holder's departure, and
- (n) notify the permit unit of the destruction of regulated organisms.

Notifications to the permit unit must be made via 866-524-5421 or [pest.permits@aphis.usda.gov](mailto:pest.permits@aphis.usda.gov) within one business day of the event triggering a notification.

2. This permit does not authorize movement or use of plant pathogens listed in the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. If any organism listed as a Select Agent is identified from materials associated with this research, the permit holder is required to notify APHIS, Agricultural Select Agent Program (ASAP) immediately by phone at 301-851-3300, and within seven (7) days submit APHIS/CDC Form 4 (Report of Identification of a Select Agent or Toxin in a Clinical or Diagnostic Laboratory) to APHIS, ASAP; 4700 River Rd, Unit 2, Riverdale, MD 20737 (see instructions at: [https://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth/sa\\_import\\_into\\_us/sa\\_ag\\_select\\_agent/ct\\_ag\\_bioterr\\_toxinlist/](https://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth/sa_import_into_us/sa_ag_select_agent/ct_ag_bioterr_toxinlist/)). Failure to comply with this requirement is a violation of the Agricultural Bioterrorism Protection Act of 2002.
3. Without prior notice and during reasonable hours, authorized PPQ and/or State regulatory officials shall be allowed to inspect the conditions associated with the regulated organisms authorized under this permit.
4. The regulated material must be packaged for importation in a securely closed, watertight primary container (e.g., test tube, vial, or ampule) that is completely enclosed in a second, durable watertight container (secondary container). Several primary containers may be enclosed in a single secondary container. The space between the primary and secondary containers must contain sufficient non-particulate absorbent material (e.g., paper towel) to absorb the entire contents of the primary container(s) in case of breakage or leakage. Each set of primary and secondary containers must be enclosed in an outer shipping container constructed of corrugated fiberboard, corrugated cardboard, wood, or other material of equivalent strength. You must instruct senders of the regulated material to double seal samples in heavy plastic bags (e.g. two zip-lock freezer bags), and to place the sealed bags in sturdy shipping container (e.g., Kraft paper or plastic shipping tubes/boxes).
5. Upon receipt, all samples potentially containing mobile arthropod life stages must be placed in a refrigerator for at least 4 hours prior to opening the package. Following this initial processing, living samples must be placed in sealed containers for subsequent diagnostic determinations.

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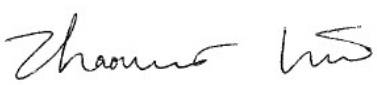
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6. Upon receipt, whenever possible, packages must be opened within a laminar flow biosafety cabinet, that meets or exceeds Class II, Type A, in the permit holder's assigned laboratory facilities within CF#4512. Otherwise packages must be opened within an area dedicated for this purpose within CF#4512.
7. All packaging materials in contact with organisms and/or contaminants and all un-used and leftover organisms must be sufficiently heat or chemically treated to kill all plant pests and contaminants prior to disposal.
8. Diagnostic samples must be maintained in the permit holder's laboratory facilities within CF#4512. All stored samples must be kept in a locked area with access restricted to authorized personnel.
9. This permit authorizes the movement of any plant parts or whole plants infected with the listed organisms.

The movement of soil is authorized under this permit. All soil samples must be handled in such a way (e.g. wear adequate protective clothing, clean and maintain floors and work surfaces so that soil cannot accumulate, disinfect all work surfaces between samples) so that movement of plant pests out of the facility does not occur.

10. This authorization is strictly for diagnostic activities in a controlled environment only. Plant inoculations are authorized in the laboratory or growth chamber only as necessary to confirm a diagnosis.
11. All waste water from laboratory procedures or irrigation water that potentially contains plant pathogens must be sufficiently treated to kill or render non-viable all pathogens prior to disposal.
12. Vector transmission is NOT permitted under this authorization. Only mechanical inoculation of plants is permitted.
13. Measures to control insect vectors (e.g. black lights, yellow sticky boards, insecticides) must be in place in growth chamber.
14. Placement of organisms into a culture collection or any other research with these organisms is not authorized under this permit. Separate 526 permits are required for these activities.
15. Upon completion of diagnostic activities, all organisms, inoculated plants, plant material, soil and/or growing media must be destroyed by heat or chemical treatment sufficient to kill, destroy, or otherwise deactivate plant pathogens. All materials used to conduct research must be decontaminated prior to reuse or disposal.
16. A record of all final identifications must be maintained at the address provided on the permit application, and these records must be available to PPQ upon request.
17. There is to be no further movement or distribution of organisms within the United States and its territories unless the recipient holds a valid permit for receipt of such organisms.

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# 18. Reporting Requirements:

The permit holder or authorized individual must notify APHIS Plant Protection and Quarantine (PPQ) Pests Pathogens and Biocontrol Permit Branch (PPBP) within 10 working days of the confirmation that an organism is identified as (a) a species new to science, (b) an organism not known to occur in the United States, or (c) a pest managed by an APHIS program (program pest; [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/index.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/index.shtml)), d) an organism that is new or regulated by the destination state (California). Include the permit number, the origins and dates of receipt of the samples, and the identified organism. The notification must be sent to USDA/APHIS/PPQ/RPM/PPB, 4700 River Rd., Unit 133, Riverdale, MD 20737, faxed to 301-734-8700 or emailed to [Pest.Permits@aphis.usda.gov](mailto:Pest.Permits@aphis.usda.gov) Attn: Zhaowei Liu, as Word, Excel or pdf documents. Notifications must also be sent to the State Plant Health Director (SPHD) and State Plant Regulatory Official (SPRO) of the state of origin of the specific sample within 10 working days (see [http://www.aphis.usda.gov/services/report\\_pest\\_disease/report\\_pest\\_disease.shtml](http://www.aphis.usda.gov/services/report_pest_disease/report_pest_disease.shtml) and <http://www.nationalplantboard.org/member/index.html> for contact information).

19. Under the Plant Protection Act, individuals or corporations who fail to comply with these conditions and authorizations, or who forge, counterfeit, or deface permits or shipping labels may receive civil or criminal penalties, and may have all current permits cancelled and future permit applications denied.
20. All persons working with these organisms must be informed of these permit conditions. Anyone working with these organisms must agree to and sign/ initial these conditions before beginning work. These signed conditions do not need to be submitted to USDA/ APHIS but must be readily accessible in the event of an inspection and presented upon request.

Note: these conditions may be copied and stored electronically for electronic signature and initialing provided that the permit number, authorized organisms and life stages, release locations if applicable, and authorization statement all appear on the document with the permit number. Signing these conditions only indicates that the person working under this permit has read them; the permit holder is the sole responsible party under this permit.

## END OF PERMIT CONDITIONS

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